The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT KEITH SALSMAN

Appeal 2007-2816
Application 10/677,691
Technology Center 3700

Decided: August 31, 2007

Before TONI R. SCHEINER, DEMETRA J. MILLS, and
ERIC GRIMES, *Administrative Patent Judges*.

MILLS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims 28 and 30-36, the only claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

Representative claims follow.

28. A method for increasing the distance a golf ball may be driven by reducing the surface friction of the ball support surface of a golf tee comprising the steps of:

a) forming a layer consisting essentially of a friction reducing polymeric material;

b) shaping a surface of the tee for supporting the ball by forming a central depression in said ball support surface, said depression having a circumference substantially less than that of a golf ball, said depression having a peripheral rim upon which the golf ball is supported;

c) securing said friction reducing layer of a friction reducing polymeric material to said shaped surface;

d) whereby a golf ball driven from said friction reducing layer travels a measurably longer distance than a ball driven from a surface without said friction reducing material.

31. An improved golf tee comprising:

a) a head including a configured upper surface comprising a golf ball support surface;

b) a shaft for supporting said head, said shaft being insertable into the ground;

c) a friction reducing polymer having a surface friction at least as low as that of polytetrafluoroethylene forming a surface layer covering said support surface, said surface layer conforming with the shape of said support surface; and,

d) said surface layer providing the only contact surface supporting the ball on the tee thereby allowing the ball to be driven a measurably greater distance than a ball driven from a tee without said surface.

32. A method for increasing the distance a golf ball may be driven from a tee comprising the step of: reducing the surface friction of a ball support surface of the tee by providing a ball support surface consisting essentially of a polymeric material having a coefficient of friction at least as low as polytetrafluoroethylene.

The Examiner relies upon the following references

Whelan	US 3,954,263	May 4, 1976
Lutz	US 5,744,549	Apr. 28, 1998
Anderson	US 5,890,976	Apr. 6, 1999
Fleischer	US 5,984,808	Nov. 16, 1999
Chang	US 6,402,636 B1	Jun. 11, 2002

DISCUSSION

Obviousness

Claims 28 and 30-36 stand rejected under 35 USC 103(a) as obvious over Whelan, in view of Anderson, Chang, Fleischer and Lutz. We select claims 28 and 32 as representative of the rejected claims as Appellant has not provided separate arguments for other claims in the Brief. 37 C.F.R. 41.37(c)(1)(vii).

The examiner finds that

> Whelan et al. discloses a golf tee including a ball support surface wherein the tee is provided with a surface layer for protecting the tee. Note column 1, line 65 through column 2, line 4 and column 2, lines 43-45 stating that the surface layer is applied as a coating and may be made from various materials. Whelan also provides a central depression in the ball support surface. However, Whelan et al. lacks the teaching for the coating to be first formed as a layer before application to the tee.
>
> Anderson discloses a golf tee construction including a surface layer applied to the shaft of the tee. Note column 2, line 59 through column 3, line 8 stating that it is well known in the art of golf tee to either apply the layer directly to the tee or first form the layer and then apply it to the shaft. Further, Anderson teaches that it is well known in the art of golf tees to apply the layer thereto using an adhesive (column 2, lines 65-67).

(Answer 3.)

The examiner concludes

> It would have been obvious to one of ordinary skill in the art to form the coating of Whelan et al. first as a layer before application to the tee in order to provide an alternative method of manufacturing that is taught by Anderson as being substantially equivalent.

(Answer 3.)

Each of Chang, Fleischer and Lutz disclose an article of golf equipment wherein polytetrafluoroethylene (PTFE) is used in order to reduce the friction between the article and a contacting surface. "Each reference is relied upon as a specific teaching that it is old and well known in the art of golf equipment to merely include a layer of polytetrafluoroethylene on a surface in order to reduce its coefficient of friction." (Answer 4.)

The examiner finds that "given the suggestions of Chang, Fleischer and Lutz, it would have been obvious to one of ordinary skill in the art to provide the tee of Whelan et al. with a layer of polytetrafluoroethylene in order to reduce any frictional forces created between the tee and a contacting surface." (Answer 4.)

In order to determine whether a prima facie case of obviousness has been established, we consider the factors set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966); (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the relevant art; and (4) objective evidence of nonobviousness, if present.

We find the examiner has provided sufficient evidence to support a prima facie case of obviousness for the subject matter of claims 28 and 32. In particular, both Whelan and Anderson provide evidence that covered golf tees were known in the prior art. The difference between the claims and Whelan and Anderson is the inclusion in the claims of a friction reducing polymeric material in the golf tee coating. Each of Chang, Fleischer and Lutz disclose an article of golf equipment wherein polytetrafluoroethylene (PTFE) is included in order to reduce the friction between the article and a contacting surface and provide evidence that it is old and well known in the art of golf equipment to merely include a layer of polytetrafluoroethylene on a surface in order to reduce its coefficient of friction. Therefore, the Examiner has provided prior art evidence and a rationale as to why it would have been obvious to one of ordinary skill in the art to include a friction reducing polymeric material on a golf tee.

Appellant contends there is no motivation to combine the cited references. (Br. 9.) Appellant argues neither Whelan nor Anderson show forming a layer consisting essentially of a friction reducing polymer material, shaping a surface of the tee to support a ball and securing the friction reducing layer to the shaped surface. (Br. 11.)

However, "when the question is whether a patent claiming the combination of elements of prior art is obvious" the relevant question is "whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR Int'l Co. v. Teleflex Inc.*, 127 Ct. 1727, 82 USPQ2d 1385 (2007). *See id.* at 1731, 82 USPQ2d at 1396 (It is proper to "take account of the inferences and creative steps that a person of ordinary skill in the art would employ.") We agree with the

Examiner that one of ordinary skill in the art would have predictably been motivated to use PTFE for its known function of reducing frictional forces created when the tee contacts the golf ball. Each of Chang, Fleischer and Lutz provide evidence that it is known and desirable to add PTFE to golf equipment surfaces to reduce the coefficient of friction when balls are struck with a golf club (Lutz, col. 9, ll. 2-16; Fleischer, col. 3, ll. 8-22; Chang, col. 4, ll. 60-64).

Although Appellant argues there is no motivation to combine a covered golf tee with a PTFE covered golf ball or a golf club with surfaces covered with PTFE (Br. 12), we are not persuaded by this argument. Appellant specifically references method claim 32 in this regard. "When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product ... of ordinary skill and common sense." (*KSR*, 127 S.Ct. at 1742.) In our view, those of ordinary skill in the art would have recognized from Chang, Fleischer, and Lutz that there was a design need or market pressure to reduce friction in golf equipment and would have had good reason to pursue the known option of using PTFE for its known function of reducing friction, on a golf tee, with the expectation that friction would be reduced between the tee and a golf ball and with the expectation that the distance the ball may be driven would increase.

Appellant has failed to rebut the Examiner's prima facie case of obviousness with the weight of his argument. We affirm the obviousness rejection.

CONCLUSION

The obviousness rejection is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

dm

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